



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

HJ

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,517	03/30/2004	Kent Allan Franklin	KCC-15,622.1	6134
7590	12/13/2005			
Melanie I. Rauch Pauley Petersen Kinne & Fejer Suite 365 2800 West Higgins Road Hoffman Estates, IL 60195			EXAMINER	TAWFIK, SAMEH
			ART UNIT	PAPER NUMBER
			3721	
DATE MAILED: 12/13/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/813,517	FRANKLIN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sameh H. Tawfik	3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 20 October 2005.
- 2a) This action is **FINAL**.                                   2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 30-44 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-29 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
- Certified copies of the priority documents have been received.
  - Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, 5, and 7-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Maxton et al. (6,497,032).

Maxton discloses a method of tucking a pair of opposing side panels onto a body portion of a pant-like garment, comprising the steps of positioning the body portion of the pant-like garment on a conveyor having a vacuum zone (Figs. 2, 10 and 11; via vacuum box 234); holding the body portion on the conveyor using vacuum force from the vacuum zone; and using a mechanical tucking device that is separate from the conveyor to push the opposing side panels onto the body portion a distance toward one another while the vacuum force is holding the body portion on the conveyor (Figs. 10 and 11; via folding apparatus 250); note that the folding apparatus 210 can be mounted on the entry conveyor 208, the support structure 240, partially or fully on the main folding drum 212, or the like (column 24, lines 26-29), creating longitudinal folds in the garment along outer longitudinal edges of the vacuum zone (Figs. 2, 10, and 11).

Regarding claim 4: wherein the vacuum zone comprises a uniform vacuum across a transverse width of the vacuum zone (Fig. 10; via using same vacuum box 234).

Regarding claim 5: wherein the vacuum zone has a transverse width about equal to a desired folded transverse width of the body portion of the garment (Figs. 10 and 11).

Regarding claim 7: further comprising the step of using a mechanical tucking device to push the opposing side panels onto the body portion toward one another (Figs. 10 and 11).

Regarding claim 8: wherein the longitudinal folds are created in the body portion of the pant-like garment (Figs. 10 and 11).

Regarding claim 9: wherein the longitudinal folds are created along seams joining the side panels to the body portion (Figs. 10 and 11).

Regarding claim 10: wherein a portion of at least two of the opposing side panels is held onto the vacuum zone, and a longitudinal fold is created in each of the at least two opposing side panels (Figs. 10 and 11).

Regarding claims 11-13: wherein the pant-like garment comprises a training pant, swim-pant, and/or has un-bonded side panels (Fig. 4 and column 4, lines 46-48).

Claims 14-20, 23, and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Westphal et al. (4,739,910).

Westphal discloses a method and an apparatus of tucking a pair of opposing side panels onto a body portion of a pant-like garment comprising the steps of positioning the body portion of the pant-like garment on a conveyor having a vacuum zone (Fig. 1; upper and lower conveyors and via vacuum sources 122); holding the body portion on the conveyor using vacuum force from the vacuum zone (Fig. 2; via the body of the garments 12); and a mechanical tucking device that is separate from the at least one conveyor (Fig. 1) for pushing the opposing side

panels onto the body portion a distance toward one another, creating longitudinal folds in the garment along outer longitudinal edges of the vacuum zone (Figs. 10-12 and column 7, lines 65-68).

Regarding claims 15 and 16: wherein the vacuum zone comprises an outer area adjacent each of the outer longitudinal edges, the outer areas each having a first vacuum, and an inner area between the outer areas, the inner area having a second vacuum lower/higher than the first vacuum (Fig. 2; via vacuum compartments 128, 130, and 132; and column 5, lines 51-62).

Regarding claim 17: wherein the vacuum zone comprises a uniform vacuum across a transverse width of the vacuum zone (Fig. 1; via across the transverse of each compartment same vacuum source).

Regarding claim 19: an upper conveyor having an upper vacuum zone and a lower conveyor having a lower vacuum zone (Figs. 1 and 2; via 122).

Regarding claim 20: wherein the upper conveyor and the lower conveyor diverge from one another and then converge toward one another along a machine direction path of the conveyor (Figs. 1 and 2).

Regarding claim 23: wherein the device for pushing the side panels onto the body portion comprises a vacuum (Fig. 2; via vacuum conveyor belts help on the folding step; column 7, lines 65-68).

Regarding claim 25: wherein the device for pushing the side panels onto the body portion comprises two opposing assemblies, each assembly including at least one tucking blade on a track that guides the at least one tucking blade a distance alongside the at least one conveyor (Fig. 10; via blade 176).

Regarding claim 26: wherein the track of each of the assemblies maintains the at least one tucking blade essentially parallel to the pant-like garment (Figs. 10-12).

Regarding claim 27: wherein the track of each of the assemblies travels essentially parallel to the at least one conveyor and above the at least one conveyor (Figs. 1 and 2; via above conveyor 74).

Regarding claim 28: wherein the track of each of the assemblies travels essentially parallel to the at least one conveyor and below the at least one conveyor (Figs. 1 and 2; via below conveyor 96).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maxton et al. (6,497,032).

Maxton does not disclose using a pair of fluid stream to push the opposing side panels onto the body portion toward one another. However, the examiner takes an official notice that such using fluid streams to push and fold opposing side of segment is old, well known, and available in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Maxton's folding means by having fluid

streams means to fold the garment, as a matter of engineering design choice, in order to avoid the step of pivoting the folding member and speed up the process of folding.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxton et al. (6,497,032) in view of Westphal et al. (4,739,032).

Maxton does not disclose that vacuum zone comprises an outer area adjacent each of the outer longitudinal edges, the outer areas each having a first vacuum, and an inner area between the outer areas, the inner area having a second vacuum lower than the first vacuum. However, Westphal discloses a similar method comprising different vacuum zones with different vacuum force (Fig. 2; via 128, 130, and 132; column 5, lines 51-62).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Maxton's vacuum box, by using different vacuum zone and different force, as suggested by Westphal, in order to fold and manufacture child's training pant or the like in an efficient and less-costly manner (column 1, lines 62-63).

Claims 24 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westphal et al. (4,739,910).

Westphal does not disclose that pushing assembly including at least one tucking blade on a rotary paddle. However, westphal disclose in Figs. 10-12 using pushing means 148 and 152, which is equivalent to the pushing tucking blade. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted Westphal's pushing means 148 and 152, by using tucking pushing blades as a matter of engineering design choice, in order to simplify the apparatus.

Regarding claim 29: Westphal neither disclose a driven stacker assembly having at least two stacker finger units. However, the examiner takes an official notice that the mentioned driven stacker assembly having at least two stacker finger units is old, well known, and available in the art to stack group of products. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Westphal's apparatus by having driven stacker assembly having at least two stacker finger units, in order to stack group of products as they come out of the apparatus.

Claim 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westphal et al. (4,739,910) in view of Kober (5,300,007).

Westphal does not disclose the step of using a pair of fluid streams to push the opposing side panels onto the body portion toward one another. However, Kober discloses using a fluid streams for folding a segment (Figs. 1-3) to simply control the folding proces.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted Westphal's folding pusher and arms as shown in Figs. 10-12 by using fluid streams, as suggested by Kober, in order to use less mechanical parts and as a result occupying a minimum of valuable floor space (column 2, lines 8-10).

Applicant is advised that the Notice of Allowance mailed is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that

the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

*Response to Arguments*

Applicant's arguments filed 10/20/2005 have been fully considered but they are not persuasive.

Applicants argue in page 9 of the filed argument that the applied U.S. Patent of Maxton (6,723,035) is not a proper 102(b) in respect to the filling date of the present application and the date of the date of the '035 patent. The examiner agrees with applicants arguments and noted that the statutory should have been 102(e) instead of 102(b).

Applicants argue in page 10 of the arguments that Maxton fails to disclose the use of a mechanical tucking device that is separate from the conveyor to push opposing side panels onto the body portion of a garment. The examiner believes that Maxton discloses the claimed separate tucking device from the conveyor to push opposing side panels onto the body portion of a garment, see for example Figs. 10 and 11, via conveying plate 237 with respect to the folding apparatus 210/250; the folding apparatus 210 can be mounted on the support structure 240, partially or full on the main folding drum 21, or the like, clarified in Maxton, column 24, lines 26-29. That explains the folding tucking device could be separate from the conveyor.

Applicants further argue in pages 10 and 11 of the arguments that Westphal does not disclose the invention as recited in claim 14, requiring the opposing side panels of the garment be pushed onto the body portion a distance toward one another while at the same time the vacuum force is holding the body portion on the conveyor. The examiner believes that Westphal disclosed the invention as recited in claim 14, see for example Figs. 1 and 2 of Westphal, they

show that stopper 149 holds the garment in place while still under the effect of the vacuum at the mean while the folding step starts by pushing and forming the garment via 148 while still the garment hold by the vacuum.

Applicants further argue in page 11 that Westphal does not disclose that the garment is being in contact with the conveyor assemblies or the suction system when the side portions of the garment are pushed onto the body portion of the garment. The examiner believes that folding the garment starts by the moment element 148 touches the garment while still in effect of the vacuum.

Applicants argue that in claim 20 the upper and lower conveyors converge toward a finishing end portion of the conveyors, in contrast, Westphal discloses just the opposite, wherein the conveyor assemblies diverge toward a finishing end portion of the conveyors. The examiner believes that applicants argue about converging at the “finishing end portion” which is not disclosed in the claimed language. Claim 20 cites the diverging and converging “along a machine direction path”, which is different than “finishing end portion”. The examiner believes that the claimed limitation “along a machine direction path” been disclosed by Westphal as it is shown in Figs. 1 and 2 via the tilted conveyors on the machine direction.

Applicants again argue in page 12 that Maxton fails to disclose the use of a mechanical tucking device that is separate from the conveyor to push opposing side panels onto the body portion of a garment. The examiner believes that Maxton discloses the claimed separate tucking device from the conveyor to push opposing side panels onto the body portion of a garment, see for example Figs. 10 and 11, via conveying plate 237 with respect to the folding apparatus 210/250; the folding apparatus 210 can mounted on the support structure 240, partially or full on

the main folding drum 21, or the like, clarified in Maxton, column 24, lines 26-29. That explains the folding tucking device could be separate from the conveyor.

In response to applicant's argument in page 13 that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the examiner believes that both references to Maxton and Westphal related to apparatus of folding garments by using via vacuum, which both references are relating to the same art and that make it obvious to one having ordinary skill in the art to modify Maxton's vacuum boc, by using different vacuum zone and different force, as suggested by Westphal, in order to fold and manufacture folded garments in an efficient and less-costly manner.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameh H. Tawfik whose telephone number is 571-272-4470. The examiner can normally be reached on Tuesday - Friday from 8:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sameh H. Tawfik  
Patent Examiner  
Art Unit 3721

ST.

A handwritten signature in black ink, appearing to read "Sameh", is positioned above a long, thin, horizontal line that serves as a witness line.